(No Model.)

J. DAWSON.

ENVELOPE MOISTENER.

No. 432,606. Patented July 22, 1890.

Fig 1.

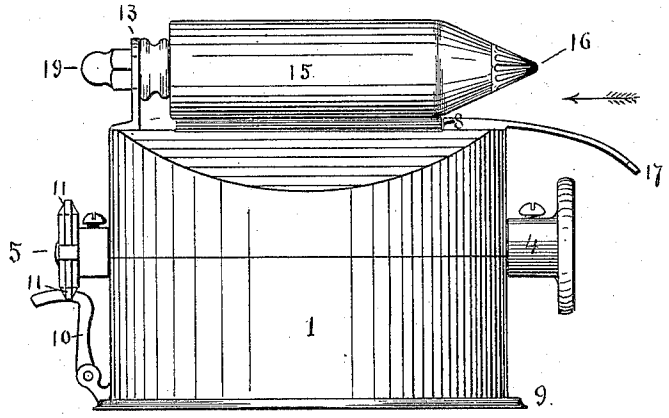


Fig 2.

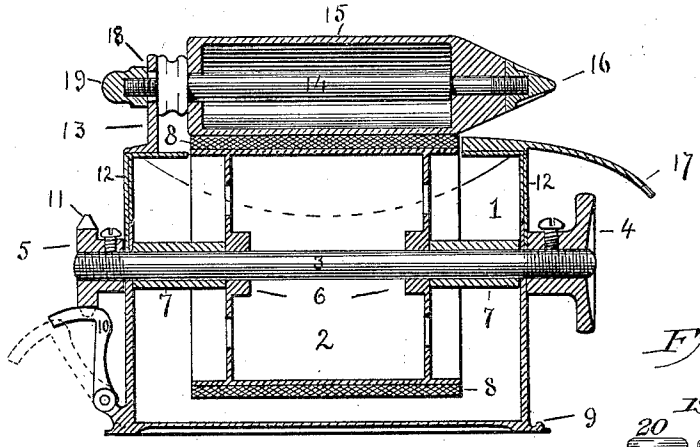


Fig. 4.

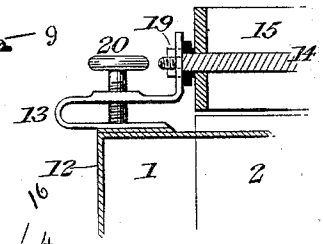
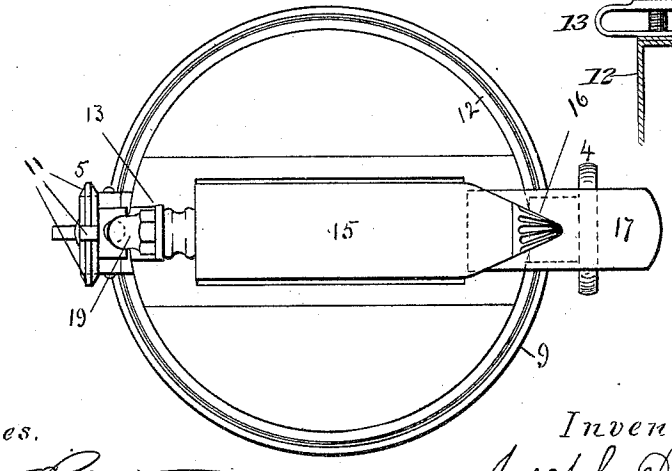


Fig 3.



Witnesses.

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JOSEPH DAWSON, OF HARTFORD, CONNECTICUT.

ENVELOPE-MOISTENER.

SPECIFICATION forming part of Letters Patent No. 432,606, dated July 22, 1890.

Application filed February 20, 1890. Serial No. 341,244. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH DAWSON, of the city and county of Hartford, in the State of Connecticut, have invented certain new and useful Improvements in Envelope-Moistener, which improvements are described in the following specification, and illustrated by the accompanying drawings.

My invention, being designed to be used in moistening envelope-flaps and other thin articles having a gummed or mucilaginous surface, or requiring to be moistened upon one side only, contains a wet roller and a dry roller, which have parallel axes and are mounted at such an adjustably-varying distance apart that the envelope-flap or other specified article is subjected to a slight pressure as it passes between them.

The best manner in which I have contemplated applying the principle of my invention is illustrated in said drawings, in which—

Figure 1 is a side view of an envelope-moistener which is constructed in accordance with my invention. Fig. 2 is a central vertical longitudinal section of the same. Fig. 3 is a top view of the same. Fig. 4 is a modified detail.

In the views the numeral 1 denotes a cylindrical cup closed at the bottom and constituting the base of the instrument. In this cup is journaled a cylindrical roller 2, whose spindle 3, extending through the opposite side walls of cup 1, is armed at one end with a milled finger-piece 4 and at the other end with a catch-wheel 5. Between each of the two hubs 6 of roller 2 and the adjacent journal in the side wall of cup 1 a soft rubber sleeve 7 is placed on spindle 3 to prevent the escape of moisture at the journals. Roller 2 has a circumferential covering 8, which is made of felt or other fibrous or porous material, and is at all times partly immersed in water which occupies the lower part of cup 1. The bottom of cup 1 is provided with a bead or circumferential flange 9, which is adapted to catch and retain a slight quantity of water whenever the latter may chance to escape at said journals.

The numeral 10 denotes a pivoted catch-arm, which is adapted to be turned by hand into a position of engagement with catch-wheel 5 by means of certain notches 11 on the periphery of that wheel, as seen in Fig. 1, or into a position of disengagement therewith, as shown by dotted lines in Fig. 2. Cup 1 is provided with a cap 12, which fits tight over the upper part of the cup, and is held on by weight and friction. The top of cap 12 over roller 2 has a middle opening, through which a portion of covering 8 constantly emerges. On cap 12 is a spring-bracket 13, having a vertical slot 18, in which a spindle 14 is held elastically and adjustably in a position parallel to spindle 3 by means of a nut 19. On spindle 14 a roller 15, which is held in position by nut 16, overhangs roller 2 in such a manner as to allow the unobstructed movement of an envelope whose flap is inserted in the moistener. This roller may appropriately be termed a "dry roller" in contradistinction from the wet roller 2. Said nut 16 and the adjacent part of the dry roller taper continuously, as shown in the drawings, and thus form a guide. A bent plate or apron 17, attached to cap 12, constitutes another guide. Passing between these two guides in the direction of the arrow in Fig. 1, the envelope-flap or other like article is easily inserted between the rollers by hand. The same is then moistened by being drawn along between said rollers. By means of catch and catch-wheel 10 and 5 the wet roller is held in a fixed position whenever the rotation of that roller would carry too much water to the place of moistening. By disengaging said catch the same roller is turned to a new position by means of finger-piece 4 whenever it is desired to expose through the slot in cap 12 a freshly-moistened portion of covering 8. By the disengagement of said catch the wet roller may be permitted to revolve as the envelope-flap or other article is drawn between the rollers. In this case both rollers are turned by the envelope as it passes between them. By this mode of operation I avoid, when necessary, all rubbing or wiping of the gummed or mucilaginous surface which is being moistened. By loosening nut 19 spindle 14 may be raised or lowered in slot 18 for the purpose of setting roller 15 by adjustment at a greater or less distance from roller 2, as may be required. A more delicate adjustment of roller 15 is automatically produced by means of the described spring-bracket 13 whenever articles

of varying or unequal thickness are passed between the rollers.

Fig. 4 shows a modified form of the spring-bracket 13 with adjacent parts. In this modification bracket 13, being doubled back, as seen in Fig. 4, is provided with an adjusting-screw 20. By turning this screw the dry roller is raised or let down, as may be required.

Such being the construction and operation of my invention, I claim—

1. In a moistening device, a moistening-roller, in combination with a spring-seated dry roller, which is mounted at an adjustable distance therefrom, substantially as and for the purpose specified.

2. In a moistening device, a cup and a moistening-roller having a portion of its periphery projecting through an opening in the top of said cup, in combination with a dry roller, which is mounted over said opening at an adjustable distance from said moistening-roller, substantially as and for the purpose specified.

3. In a moistening device, a cup, a moistening-roller journaled therein, and a dry roller tapering at one end and supported from the opposite end, in combination with an apron which is near the tapering end of said dry roller and is adapted to co-operate therewith as a guide, substantially as and for the purpose specified.

4. A cup and a moistening-roller which is journaled thereon and is provided with a finger-piece and a catch, in combination with a dry roller which is mounted on said cup, substantially as and for the purpose specified.

5. A cup and a moistening-roller therein, in combination with a dry roller conical at one end and carried on a spindle which is supported from the opposite end, substantially as and for the purpose specified.

6. In a moistening device, a moistening-roller, in combination with an overhanging dry roller, substantially as and for the purpose specified.

7. A cup and a moistening member projecting through an opening in the top of the cup, in combination with a cylindrical roller carried by an adjustable spindle and retained thereon by means of a nut at the free end of said spindle, substantially as and for the purpose specified.

8. In a moistening device, a wet roller, in combination with a spring-seated dry roller, substantially as and for the purpose specified.

In testimony whereof I hereunto set my name in the presence of two witnesses.

JOSEPH DAWSON.

Witnesses:
WILLARD EDDY,
JOSEPH R. CARROLL.